



## Department of Energy

Idaho Operations Office  
850 Energy Drive  
Idaho Falls, Idaho 83401-1563

February 26, 2001

Mr. Wayne Pierre, Project Manager  
Environmental Cleanup Office  
U.S. Environmental Protection Agency  
Region 10  
1200 Sixth Avenue  
Seattle, Washington 98101

Mr. Dean Nygard, Site Remediation Manager  
Idaho Department of Environmental Quality  
1410 N. Hilton  
Boise, Idaho 83706

SUBJECT: Request for Extension of Deadlines - Waste Area Group 7, Operable Unit (OU) 7-10  
(EM-ER-01-028)

- References: (a) *Federal Facility Agreement and Consent Order and Action Plan*, U.S. Department of Energy, Idaho Field Office; U.S. Environmental Protection Agency, Region 10; Idaho Department of Health and Welfare, December 4, 1991
- (b) *Work Plan for Stage I of the Operable Unit 7-10 Contingency Project*, DOE/ID-10623, Revision 0, Idaho National Engineering and Environmental Laboratory, Lockheed Martin Idaho Technologies Company, June 1998
- (c) *Operable Unit 7-10 (OU 7-10) Staged Interim Action Project, Stage II, RD/RA Work Plan Primary Deliverable Submittal*, DOE/ID-10767, Idaho National Engineering and Environmental Laboratory, Bechtel BWXT Idaho, LLC, June 2000

Dear Messrs. Pierre and Nygard:

In accordance with Article XIII of the Federal Facility Agreement and Compliance Order (FFA/CO) (reference a), the U.S. Department of Energy (DOE) is requesting an extension of the following OU 7-10 deadlines to the new dates as shown:

- (1) Draft Stage II remedial action report—from the current deadline of April 2003 to a new deadline of August 2010 (88 months)
- (2) Draft Stage III remedial design (90% design)—from the current deadline of April 2003 to a new deadline of August 2013 (124 months)
- (3) Draft Stage III remedial action work plan and operations and maintenance plan—from the current deadline of September 2003 to a new deadline of February 2016 (149 months).

It is the position of DOE that good cause exists for extension (1), the draft Stage II remedial action report, under Paragraph 13.2 (e) of the FFA/CO because of the impossibility of properly completing the document within the existing deadlines. As we have drawn nearer to the April 2003 deadline, it has become clear that, despite best efforts, DOE will not be able to complete this primary document within that timeframe, as detailed below. In addition, DOE has determined that the Work Plan for Stage I of the Operable Unit (OU) 7-10 Contingency Project (reference b) grossly underestimated the current scope and difficulty of designing, constructing, and operating the complex nuclear facility required for Stage II of OU 7-10. The complexities and difficulties identified during the design, which must be incorporated into the procurement, construction, and operations phases, include but are not limited to the following:

- The safety issues for the Stage II execution were greatly underestimated during the conceptual design. The Stage II Remedial Design/Remedial Action (RD/RA) Work Plan (reference c) required a hard-walled primary confinement structure with one-of-a-kind retrieval and monitoring systems, which increased the duration of the procurement construction and operating cycles from what was defined in the conceptual design.
- Subsequent to the issuance of the Work Plan for Stage I of the OU 7-10 Contingency Project (reference b), data quality objectives were drastically revised from excavation and storage to include in situ characterization based on a 2 × 2-ft square by 6-in.-thick grid over the 20 × 20-ft excavation. This requirement significantly increased the amount and complexity of data acquisition equipment required and the amount and complexity of assay and monitoring systems, thereby increasing the development and acquisition times as well as operating times. This need for data drastically changed the fast-track high-throughput operation processing 80 barrels per day (in the conceptual design) to a characterization-style dig processing eight barrels per day (a tenfold reduction in the processing rate). The change to the data quality objectives forced the design concept to change from a simple "fast-track" bulk excavation and storage effort to a complex "glove box" data collection effort.
- The level of decision-making involvement by the agencies during weekly reviews of engineering details and trade studies, subsequent to the Stage II RD/RA Work Plan (reference c), is expected to continue and will lengthen the schedule for finalizing the design.
- The schedule, previously transmitted to you (see Attachment 1), fully details the engineering, procurement, construction, and operational steps and the associated duration required to prepare the draft Stage II remedial action report. Relative to that schedule, it is clear that meeting the April 2003 milestone is a physical impossibility. The schedule represents DOE's best effort at a realistic plan to complete Stage II remedial action and prepare the draft Stage II remedial action report.

The DOE, U.S. Environmental Protection Agency (EPA), and Idaho Department of Environmental Quality (DEQ) had hoped to reach the April 2003 milestone by "fast tracking" the design of the retrieval system through parallel rather than serial tasking. However, based on thorough safety and design analyses, completion of internal reviews evaluating our progress, and extensive participation of EPA and DEQ in the design of the excavation and retrieval facility, as set forth in the Stage II RD/RA Work Plan (reference c), it is now evident that such a complex facility simply cannot be constructed and placed in operation within the time originally allotted. It would be irresponsible to fast track the construction and operation of this complex facility. We are constrained by the limits of reasonable science and safe engineering standards, which are

essential when dealing with materials of this nature, and by the conditions of the Subsurface Disposal Area — constraints that are beyond our control to alter. Specifically, Attachment 1 and the Stage II RD/RA Work Plan (reference c, Binder XXIV—Cost and Schedule) clearly established that, contrary to the prior expectations of all parties to the FFA/CO, which had been based on much less information, at least seven years will be required to complete Stage II of OU 7-10.

Extensions (2) and (3) are related to, and the direct result of, extension (1). After the new deadline for (1) to complete the draft Stage II remedial action report (a primary document), we will need 6 months to complete EPA and DEQ reviews and prepare the final Stage II remedial action report, and then 30 months to complete the detailed Stage III design necessary for a project of this complexity. Then, after the draft Stage III remedial design (90% design) document is submitted on this revised schedule, we will need 12 months to complete final trade studies and EPA and DEQ reviews before we can complete the final Stage III remedial design (90% design) document, and then another 18 months to prepare the draft Stage III remedial action work plan and operations and maintenance plan. The documents will be lengthy and complex. Historically, this amount of time has been necessary to complete reviews and resolve issues.

Thus, our best analysis of the work process leads to the calculation of new deadlines as shown above. The details of the need for these extensions are also set out in the previous communications attached to the letter (see Attachments 1 through 4). This documentation includes detailed work planning documents, which indicate the breakdown of component stages of each primary task.

We will be happy to answer your questions about any of this information. Please call me at (208) 526-4392 or Brian Edgerton at (208) 526-1081.

Sincerely,  
*Kathleen E. Hain*  
Kathleen E. Hain, Director  
Environmental Restoration Division

Enclosures:

1. DOE November 22, 2000, Letter, K. E. Hain, DOE-Idaho, to W. Pierre, U.S. EPA Region 10, and D. Nygard, IDEQ, "Waste Area Group 7—Operable Unit (OU) 7-10, Revised Working Schedule"
2. DOE October 31, 2000, Letter, K. E. Hain, DOE-Idaho, to W. Pierre, EPA Region 10, and D. Nygard, IDEQ, "Waste Area Group 7—Operable Unit (OU) 7-10, Pit 9 Interim Record of Decision, Transmittal of Responses to Agency Comments on the Stage II Draft Remedial Design/Remedial Action Work Plan"
3. DOE September 27, 2000, Letter, K. E. Hain, DOE-Idaho, to W. Pierre, EPA Region 10, and D. Nygard, IDEQ, "Waste Area Group 7—Operable Unit (OU) 7-10, Pit 9 Record of Decision, Request for Extension"
4. DOE August 15, 2000, Letter, K. E. Hain, DOE-Idaho, to W. Pierre, EPA Region 10, and D. Nygard, IDEQ, "Waste Area Group 7 – Response to EPA Region 10 Letter Dated July 7, 2000 and IDEQ Letter Dated July 19, 2000"

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CONCURRENCE:

OCC MM 2/26/01

RECORD NOTES:

1. This letter was written to
2. This letter was written by K. Hain (EM/ER). KHA
3. This letter/memo closes OATS number N/A
4. The attached correspondence has no relation to the Naval Nuclear Propulsion Program. Naval Reactors concurrence is not required.